IBM DB2 Records Manager Enabler for Content Manager v8.2 by IBM Corporation

IBM DB2 Records Manager Enabler for Content Manager Summary Report

The Joint Interoperability Test Command (JITC) tested the integration of IBM DB2 Records Manager Version (v) 3.1 with IBM DB2 Content Manager v8.2 by IBM Corporation at the IBM facility in San Jose, CA, 27 through 31 October 2003. Using version 7.1 of the Test Procedures, JITC verified the IBM/Content Manager product combination complied with Chapter 2, Mandatory Requirements of the Department of Defense 5015.2 Standard, "Design Criteria Standard for Electronic Records Management Software Applications," dated 19 June 2002. The product combination satisfied all mandatory requirements.

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1. Product Identification

IBM DB2 Content Manager is a content management system that offers document and content management capabilities. Its integration with IBM DB2 Records Manager gives organizations the ability to manage Content Manager documents as records.

The IBM DB2 Records Manager Enabler for Content Manager software package, as tested, consisted of the following programs and utilities:

- IBM DB2 Records Manager v3.1
- IBM DB2 Content Manager for Multiplatforms v8.2 FP2 (Windows, AIX, Sun)
- IBM DB2 Content Manager for zOS v8.2 (OS/390)
- IBM DB2 Content Manager Client for Windows v8.2 FP2
- IBM DB2 Content Manager eClient Server v8.2 FP2 (Web-based Client) (on Windows, AIX, Sun)
- IBM Lotus Notes v5.0.11
- Microsoft Outlook 2000, XP

1.1 Allocation of RMA Requirements

Table 1 identifies the mandatory functions required by the Standard and indicates which of those functions are performed by IBM DB2 Records Manager, which are performed by Content Manager, and which both products perform either jointly (both share the function) or separately (both perform the function independently).

Table 1 Mandatory Functions Allocation				
	DoD 5015.2-STD	**IBM DB2 Records Manager**	**Content Manager**	**Comments**
Para	**Requirement**			
C2.1.1.	Managing Records	√	√	Jointly
C2.1.2.	Accommodating Dates and Date Logic	√	√	Separately
C2.1.3.	Implementing Standard Data	√	√	Jointly
C2.1.4.	Backward Compatibility			Not Tested[1]
C2.1.5.	Accessibility	√	√	Separately
C2.2.1.	Implementing File Plans	√		
C2.2.2.	Scheduling Records	√		
C2.2.3.	Declaring and Filing Records	√	√	Jointly
C2.2.4.	Filing E-Mail Messages	√	√	Jointly
C2.2.5.	Storing Records		√	
C2.2.6. Retention and Vital Records Management				
C2.2.6.1.	Screening Records	√		
C2.2.6.2.	Closing Record Folders	√		
C2.2.6.3.	Cutting Off Record Folders	√		
C2.2.6.4.	Freezing/Unfreezing Records	√		
C2.2.6.5.	Transferring Records	√	√	Jointly
C2.2.6.6.	Destroying Records	√	√	Jointly
C2.2.6.7.	Cycling Vital Records	√		
C2.2.6.8.	Searching and Retrieving Records	√	√	Jointly
C2.2.7.	Access Controls	√	√	Jointly
C2.2.8.	System Audits	√	√	Jointly
C2.2.9.	System Management Requirements			Performed by the operating system and DBMS

[1] The current release of the IBM DB2 Records Manager Enabler for Content Manager product combination is based on IBM DB2 and IBM WebSphere technologies. Previous releases of this product combination were based on MS SQL and COM+ technologies, therefore backward compatibility was not applicable.

2. Test Configuration

The test configuration consisted of:

- One server running the Records Manager v3.1 server, the Content Manager v8.2 Server, the Content Manager System Administration Client, the Content Manager eClient server, the Windows Server Operating System (OS) 2000 Service Pack (SP) 4, and IBM DB2 v8.1 FP3
- One server running the Content Manager v8.2 Server, the Content Manager eClient Server, the IBM AIX v4.3.3 Server OS, and IBM DB2 v8.1 FP1
- One server running the Content Manager v8.2 Server, the Content Manager eClient Server, the IBM OS390 Server OS Z/OS v1R2, and IBM DB2 v7.1
- One server running the Content Manager v8.2 Server, the Content Manager eClient Server, the SUN Solaris Server SunOS v5.8, and IBM DB2 v8.1 FP1
- One server running the Lotus Domino Server v5.0.11 on the Windows 2000 Server OS
- One Personal Computer (PC) running MS Windows 2000 Professional (SP4), Content Manager Client for Windows, Lotus Notes v5.0.11, MS Outlook 2000, Internet Explorer (IE) 6.0 (SP1) (used as web browser for Content Manager eClient and Records Manager client), and MS Office 2000 Professional
- One PC running MS Windows ME v4.9.3000, Content Manager Client for Windows, Content Manager eClient, Lotus Notes v5.0.11, MS Outlook 2000, IE 6.0 (SP1) (used as web browser for Content Manager eClient and Records Manager client), and MS Office 2000 Professional
- One PC running MS Windows XP Professional 2002 (SP1), Content Manager Client for Windows, Lotus Notes v5.0.11, MS Outlook XP, IE 6.0 (SP1) (used as web browser for Content Manager eClient and Records Manager client), and MS Office XP Professional

3. RMA Mandatory Requirements

3.1 Managing Records [C2.1.1.]

IBM DB2 Records Manager and IBM DB2 Content Manager work together to manage electronic, non-electronic, and e-mail records. Electronic documents filed through Content Manager remain in the Content Manager repository in their original, native file format. E-mail records are filed using Content Manager's MS Outlook or Lotus Notes integration. Users maintain records stored on other media, such as paper, diskette, or tape by adding metadata through the IBM DB2 Records Manager user interface.

3.2 Accommodating Dates and Date Logic [C2.1.2.]

IBM DB2 Records Manager and IBM DB2 Content Manager store and display dates using a 4-digit year format, and recognize leap years, including the year 2000. The products accept user input of valid dates from current, previous, and future centuries.

3.3 Implementing Standard Data [C2.1.3.]

Both IBM DB2 Records Manager and IBM DB2 Content Manager provide the required elements necessary to implement standard data. Records managers create data entry templates in IBM DB2 Records Manager. They can assign default values to the metadata fields and can also assign default templates to users. In addition, records managers can create pick lists to assist the user in filling out the templates. Data is fully synchronized between IBM DB2 Content Manager and IBM DB2 Records Manager.

3.4 Backward Compatibility [C2.1.4.]

IBM DB2 Records Manager was tested for backward compatibility in October 2003. Please refer to the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report," for additional information.

The current release of the IBM DB2 Records Manager Enabler for Content Manager product combination is based on IBM DB2 and IBM WebSphere technologies. Previous releases of this product combination were based on MS SQL and COM+ technologies, therefore backward compatibility was not applicable.

3.5 Accessibility [C2.1.5.]

The IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report contains IBM Corporation's statement of compliance with Title 36 of the Code of Federal Regulations, Parts 1194.21, 1194.22, and 1194.31. IBM provided the 508 Voluntary Product Accessibility Templates (VPATS) for Content Manager provided as Appendix C in the detailed test report.

3.6 Implementing File Plans [C2.2.1.]

IBM DB2 Records Manager provides the required capabilities for creating and maintaining disposition instructions and file plans. For more information, see the JITC "IBM DB2 Records Manager v3.1. DOD 5015.2-STD Compliance Detailed Report."

3.7 Scheduling Records [C2.2.2.]

IBM DB2 Records Manager provides the required capabilities for scheduling records. For more information, see the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report."

3.8 Declaring and Filing Records [C2.2.3.]

Users can file electronic records using the IBM DB2 Content Manager Client for Windows, or the web-based eClient. Users file electronic documents through IBM DB2 Content Manager by first importing documents into the application and assigning the required metadata elements. When users decide to file the document as a record in IBM DB2 Records Manager using the IBM DB2 Content Manager eClient, they check the box next to the document and choose "Declare Record" from the "Select" menu. Users file documents from the Windows Client by highlighting the document and selecting "Declare Record" from the "Actions" menu.

Users file non-electronic records by adding metadata through the IBM DB2 Records Manager user interface.

Users file e-mail records using the IBM DB2 Content Manager enabled Microsoft Outlook or Lotus Notes client.

At the time of filing, IBM DB2 Records Manager assigns a unique record identifier and a date/time stamp to each record. The date/time stamp serves as the required Date Filed profile field. Users cannot modify either field.

3.9 Filing E-mail Messages [C2.2.4.]

The IBM Records Manager Enabler for Content Manager integration supports Lotus Notes and Microsoft Outlook. During an e-mail record declaration, Lotus Notes exports Notes objects to a supported XML file. This XML file is then imported to IBM DB2 Content Manager and declared as a record. Lotus Notes e-mail attachments can be filed as separate records in their original format. Lotus Notes does not convert the attachments to XML format. The enhanced Microsoft Outlook client imports Outlook messages into IBM DB2 Content Manager and declares them as records. Outlook e-mail attachments can be filed as separate records in their original format.

When filing e-mail messages with attachments, the users may choose one of the following filing options:

- **Single Record**. Stores the e-mail as a message file (which includes the attachments).
- **E-mail and Each Attachment as a Record**. Stores the e-mail (without attachments) as a message file and in addition, stores each attachment separately in its native file format.
- **Both**. Files the e-mail as a single record (which includes the attachments) and also files each attachment as a separate record in its native file format.

IBM Records Manager Enabler for Content Manager also allows users to file e-mail upon sending, if desired.

3.10 Storing Records [C2.2.5.]

IBM DB2 Content Manager stores electronic and e-mail records filed through the IBM DB2 Content Manager user interface in its own repository. IBM DB2 Records Manager stores record profile metadata for electronic documents, e-mail messages, and non-electronic records in the IBM DB2 Records Manager database. The permissions granted in IBM DB2 Records Manager determine who has access to the records and what they can do with those records. Only users with appropriate access can delete records from the repository.

File plan and document profile data are stored separately from the actual records in the IBM DB2 Records Manager database. IBM DB2 provided the database support during the compliance test.

3.11 Screening Records [C2.2.6.1.]

IBM DB2 Records Manager provides the required capabilities for screening records. For more information, see the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report."

3.12 Closing Record Folders [C2.2.6.2.]

IBM DB2 Records Manager provides the required capabilities for closing record folders. For more information, see the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report."

3.13 Cutting Off Record Folders [C2.2.6.3.]

IBM DB2 Records Manager provides the required capabilities for cutting off record folders. For more information, see the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report."

3.14 Freezing/Unfreezing Records [C2.2.6.4.]

IBM DB2 Records Manager provides the required capabilities for freezing records. For more information, see the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report."

3.15 Transferring Records [C2.2.6.5.]

IBM DB2 Records Manager provides the tools necessary to determine when records are due for transfer or accession. IBM DB2 Records Manager copies the metadata files to a user-specified directory. IBM DB2 Records Manager sends a command to IBM DB2 Content Manager telling it to write the selected records stored in the IBM DB2 Content Manager repository to the same directory. IBM DB2 Content Manager writes the records to that directory.

3.16 Destroying Records [C2.2.6.6.]

IBM DB2 Records Manager provides the tools necessary to determine when records are due for destruction. After the records manager confirms the intent to destroy records, IBM DB2 Records Manager deletes the metadata and any records filed through the IBM DB2 Records Manager user interface from its own repository and sends a command to IBM DB2 Content Manager telling it to destroy the contents of the selected records stored in the IBM DB2 Content Manager repository.

Deleted records are not recoverable with a file recovery utility.

3.17 Cycling Vital Records [C2.2.6.7.]

IBM DB2 Records Manager provides the required capabilities for cycling vital records. For more information, see the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report."

3.18 Searching for and Retrieving Records [C2.2.6.8.]

IBM DB2 Records Manager provides the required capabilities for searching and retrieving records. For more information, see the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report."

IBM DB2 Content Manager provides the capability to search and retrieve on the item attributes the organization defines at the time the IBM DB2 Content Manager item type is configured. System administrators and records managers should work together to define the organization's metadata set and map the IBM DB2 Content Manager item attributes to the IBM DB2 Records Manager metadata fields during system configuration. Users can export copies of records to their hard drives using the IBM DB2 Records Manager user interface or the IBM DB2 Content Manager client user interface. Records are retrieved based on the user's permissions defined in IBM DB2 Records Manager.

3.19 Access Controls [C2.2.7.]

IBM DB2 Records Manager provides the required capabilities for controlling access to records. For more information, see the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report."

For IBM DB2 Content Manager documents declared as records in IBM DB2 Records Manager, users can see the records in the IBM DB2 Content Manager client if they have the correct permissions as specified in IBM DB2 Records Manager.

3.20 System Audits [C2.2.8.]

Both IBM DB2 Records Manager and IBM DB2 Content Manager clients provide the required capability to perform system auditing. For more information on system auditing in IBM DB2 Records Manager, see the JITC "IBM DB2 Records Manager v3.1 DOD 5015.2-STD Compliance Detailed Report." Both the IBM DB2 Content Manager Client for Windows and eClient send audit logging information to the IBM Records Manager when users request a record content retrieve, for example, when users browse record content.

3.21 System Management Requirements [C2.2.9.]

The operating systems (MS Windows 2000 Server, IBM AIX, IBM OS390, and SUN Solaris) and database management system (IBM DB2) provided the required system management capabilities.

4. Non-Mandatory Features Demonstrated

4.1 Network Attached Storage

During the test, the IBM team configured an IBM DB2 Records Manager Enabler for a Content Manager system with an attached Network Appliance storage system consisting of Decru DataFort and Network Appliance Filer.

The demonstration included the following:

- IBM DB2 Records Manager Enabler for Content Manager was authorized to return data to the user in its native format, which was proven to be identical to the original file
- Controlling views to IBM DB2 Content Manager content such that unauthorized access will only result in encrypted data
- After performing a destroy action in IBM DB2 Records Manager, the encryption key which allows decryption of the content was destroyed making the recovery of the content impossible.
